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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,410	07/11/2002	Tzueng-Yau Lin	MTKP0001USA	7459
27765 7590 01/16/2007 NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			EXAMINER CHOI, MICHAEL P	
			ART UNIT	PAPER NUMBER
			2112	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/16/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/064,410

Applicant(s)

LIN, TZUENG-YAU

Examiner

Michael P. Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/16/05</u> | 6) <input checked="" type="checkbox"/> Other: <u>E-mail reply to interview.</u>                   |

## DETAILED ACTION

### *Drawings*

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **633** (as mentioned in the "Description of the Prior Art" under Paragraph 8, lines 3, 4 and 6) and **711** (as mentioned in the "Detailed Description" under Paragraph 20, line 2). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **4, 8, 51, 52, 53, 54, 531, 532** (as mentioned in Figure 2), **909** and **910** (as mentioned in Figure 3). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should

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include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The disclosure is objected to because of the following informalities: Figure 2 describes a block diagram of a traditional MP3 player, but the figure clearly demonstrates the diagram to be frames in an MP3 file, not a physical MP3 player. Also, in Paragraph 20, line 10, "Then the size of the main\_data 733 is calculated (step 905)" should be changed to "Then the size of the main\_data 733 is calculated (step 906). Also, the underscores should be removed because it is implicitly implied that "main data" or "main data begin" is connected.

Appropriate correction is required.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: **Claim 19** recites the Huffman decoding method but the Specification fails to mention this method in any regard.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lueck et al. (U.S. Patent 6,721,710 B1) in view of Wang (U.S. Patent 7,069,208) as applied to Claims 7 and 17-19, in further view of Lee (U.S. Patent 6,292,440 B1) as applied to Claims 17-19.

**Regarding Claim 7**, applicant claims a method of managing an input buffer of a playback control for playing an MP3 file on an MP3 player, where the MP3 file comprises frames containing data in sequential series. The method comprises locating a downstream frame and if a value in a totalizer is less than a value in a main data begin field of the frame, adding a calculated size of main data of the frame to the totalizer and storing the main data of frame in the input buffer.

Lueck et al. teaches having sequential series [Col. 4, line 24] of MP3 formatted frames [Col. 5, line 37, see also Figs. 6 and 7], checking if the "main\_data\_begin" is less than or equal to the "totalAmountMainData" (taken by Examiner to be "totalizer" since the "totalAmountMainData" allows maintenance of a data packet length total), and updating the total amount of main data by adding the "totalAmountMainData" with "mainDataThisFrame" (which stores the length of the frame) [Fig. 5].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to alter the inventive steps of Lueck et al. by updating the total amount of main data if the main data begin amount were more than the total amount of main data so as to start the process with the correct amount of main data after the main data was shifted [see Fig. 5].

Lueck et al. teaches a chunk of data forwarded to a temporary buffer [Col. 4, lines 49,50] but does not explicitly disclose that the main data is stored in the input buffer. Wang teaches "all main data is resident in the input buffer when the header of the next frame is arriving in the input buffer" [Col. 5, lines 33-36]. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wang's main data stored in the input buffer with Lueck's data chunk's stored in a temporary buffer because it was readily apparent in the art that the audio data chunk comprises main data and the buffer and input buffer are synonymous.

**Regarding claim 8**, applicant further claims (*see claim 7*) the method of reading an error check field if the error check field is present in the frame and using the error check field to verify integrity of data within the frame. Lueck et al. teaches a CRC (cyclic redundancy check) to detect errors in the data stream [Col. 4, line 58]. The CRC is used to produce a checksum in order to check the integrity of and detect errors in data and is well known in the art.

**Regarding Claim 9**, applicant further claims (*see claim 7*) the input buffer comprising a memory accessible by the playback control. Lueck et al. teaches data streams moving into temporary buffer when operating in a normal playback mode [Col. 4, lines 17-19]. It is inherent that the input buffer comprises memory because the buffer is a temporary storage for information serving to control flow.

**Regarding Claim 10**, applicant further claims (*see claim 7*) the playback control selecting a parser. Lueck et al. teaches parsing the header [see Fig. 4]. A parser would be selected so as to decode the data stream; therefore it is inherent that any parser would be selected by a playback control for reproduction of decoded audio data.

**Regarding Claim 11**, applicant further claims (*see claim 7*) the totalizer initialized to zero. Lueck et al. teaches initializing the "totalAmountMainData"=0 [Col. 5, line 53; see also Fig. 5].

**Regarding Claims 12, 13 and 16**, applicant further claims (*see claim 7*) using a variable to indicate that a starting frame has been located and wherein the variable is of a Boolean type. Lueck et al. teaches the first word of a header is a syncword, a string of bits that identifies the "start" of a frame [Col. 1, lines 25,26], as known in the art that each bit signifies either a '1' or '0' and is variable, thereby showing a Boolean representation of a true or false, respectively.

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**Regarding Claims 14 and 15**, applicant further claims (see *claim 7*) decoding audio data and header of a frame. Lueck et al. teaches decoding the audio data [Col. 4, line 43] and header [Col. 5, lines 44,45].

**Regarding Claims 17, 18 and 19**, the nature of the invention is an MP3 player for decoding and outputting MP3 files where the MP3 player comprises an input buffer for storing main data and a playback control for managing the input buffer and capable of determining if storage of all required main data is complete.

Lueck et al. teaches the "mainDataThisFrame" storing the length of data in that particular frame [Col. 5, lines 54-56] and determining by computation of the total amount of main data [Fig. 5] but does not disclose an MP3 player and Huffman decoding, nor explicitly discloses that the MP3 frames are resident in an input buffer. Wang teaches that the data frames, as well as the main data, are resident in an input buffer [Col. 5, lines 33-36]. Lee teaches an MP3 player [see Title and Abstract] outputting [Col. 1, line 39] and decoding, using Huffman decoding [Col. 1, lines 59-61], MP3 data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Lueck et al.'s main data with Wang's input buffer and Lee's MP3 player because the main audio data located in the input buffer is integral for the reproduction of audio data outputted from the MP3 player and is required in order to conform with MPEG Layer 3 standards.

#### ***Allowable Subject Matter***

8. Applicant was appraised of allowable subject matter (see attached Interview Summary). Applicant did not agree to examiner's proposed amendment (see attached email reply).
9. The present invention is directed to a method of managing an input buffer in a media player for playing a media file.

**Claims 1, 2, and 3** identify the uniquely distinct method "if the decoder is informed to decode from the middle of the media file, then: locating a first frame having a first main data begin field and a first main data field, if a value in the totalizer is less than a value in the first main data begin field, adding a size of the first main data field to the totalizer, and storing the first main data field in the input buffer; locating a second frame which is downstream to the first frame, the second frame having a second main data begin field and a second main data field, if a value in the totalizer is equal to or larger than a value in the second main data begin field, decoding the stream of frames starting from the second frame using both the first main data field stored in the input buffer and the second main data field; if the decoder is informed to decode from the beginning of the media file, then locating a third frame having a third main data begin field with a value of zero and a third main data field, and decoding the stream of frames starting with the third frame."

**Claims 4, 5 and 6** identify the uniquely distinct method "locating a first frame having a first main data begin field and a first main data field, if a value in the totalizer is less than a value in the first main data begin field, adding a size of the first main data field to the totalizer, and storing the first main data field in the input buffer; locating a second frame which is downstream to the first frame, the second frame having a second main data begin field and a second main data field, if a value in the totalizer is equal to or larger than a value in the second main data begin field, decoding the stream of frames starting from the second frame using both the first main data field stored in the input buffer and the second main data field."

10. The closest prior art, Lueck et al. (U.S. 6,721,710 B1), Oomen et al. (US 2003/0004708 A1) and Wong et al. (US 6,466,476 B1) disclose frames in a media file comprising main data and main data begin fields, either singularly or in combination fail to anticipate or render the above quoted limitations obvious.



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**Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 2003/0004708 A1 – Oomen et al. teaches editing data streams having main data.
- US 6,466,476 B1 – Wong et al. teaches data coding for MP3 frames.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Choi whose telephone number is (571) 272-9594. The examiner can normally be reached on Monday - Friday 7:30AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker can be reached on (571) 272-0911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MC

*Michael Choi*

  
JEFFREY STUCKER  
SUPERVISORY PATENT EXAMINER